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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,834	08/06/2003	George Ying-Liang Huang	6233.360	8619

7590

05/24/2004

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EXAMINER

FIGUEROA, FELIX O

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/634,834	<b>Applicant(s)</b> HUANG, GEORGE YING-LIANG	
	<b>Examiner</b> Felix O. Figueroa	<b>Art Unit</b> 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5 and 6 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

***Allowable Subject Matter***

Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

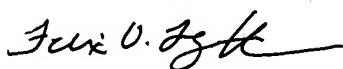
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Guo (US 2003/0073337), and Hastings et al. (US 5,966,289) disclose connectors with threaded fastening members.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (571) 272-2003. The examiner can normally be reached on Mon.-Fri., 10:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571) 272-2800 Ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ffr



RENEE LUEBKE  
PRIMARY EXAMINER

## DETAILED ACTION

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the fastening members being biased forwardly toward said second electrical connector, as required by claim 4, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa et al. (US 5,647,758) in view of Chen et al. (US 6,116,942).

Ichikawa discloses an electrical connector assembly comprising: a first electrical connector (1) having a first housing (5), a first terminal unit (52) extending outwardly from said first housing, and a fastening device including two fastening members (6) that are disposed on said first housing and that are located on two sides of said first terminal unit, and two biasing members (10), each of which is disposed between said first

housing and a respective one of said fastening members, each of said fastening members having at least two first rib portions (at 13); and a second electrical connector disposed in front of and connected electrically to said first electrical connector, said second electrical connector having a housing (15), a second terminal unit (53) that extends outwardly from said second housing and that is connected electrically and removably to said first terminal unit, and two limiting members (16) disposed on said second housing and located on two sides of said second terminal unit, each of said limiting members including at least one second rib portion (at 17) disposed between said two first rib portions of a respective one of said fastening members; and wherein when said fastening members said first electrical connector and said limiting members of said second electrical connector are interconnected so that said second rib portion of each of said limiting members is disposed between said first rib portions of the respective one of said fastening members, each of said biasing members biases the respective one said fastening member to move relative to said first housing in an axial direction of said pins so as to press the one of said first rib portions of the respective one of said fastening members against said second rib portion of the respective one of said limiting members, thereby arresting movement of said fastening members toward and away from said limiting members.

Ichikawa discloses substantially the claimed invention except for pin and pinholes. Chen shows that contact interface having pin and pinholes is an art recognized equivalent structure for the terminals of Ichikawa. Therefore, because these two contact structures were art-recognized equivalents at the time the invention was

made, one of ordinary skill in the art would have found it obvious to substitute of contact structure of Chen for the contact structure of Ichikawa to provide a reliable electrical interface.

Regarding claim 5, Ichikawa discloses each of said fastening members having an external thread (13) at a front end thereof, each of said first rib portions forming a portion of said external thread, each of said limiting members having an internal thread (17) at a rear end thereof, said second rib portion forming a portion of said internal thread.

Regarding claim 6, Ichikawa discloses substantially the claimed invention except for the groove in the fastening member. Chen discloses a fastening member (31) formed with a groove (332) which defines two flexible sections to facilitate assembly of with the limiting member. Thus, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to form the fastener members of Ichikawa having a groove, as taught by Chen, to facilitate assembly of with the limiting member. It is noted that while Chen does not teaches the groove having a V-shape, it would have been obvious to one of ordinary skill in the art to design/form the groove having different shapes. Absent any convincing showing of the criticality of the design, this particular design is nothing more than the inventor's choice without thereby departing from the scope of the invention. *In re Dailey*, 149 USPQ 47 (CCPA 1976).